

**REMARKS**

Claims 1-32 are pending. Claims 8-11, 13-15, and 16-22 are rejected under 35 U.S.C. § 102(e). Claims 1-7, 12, and 23-32 are rejected under 35 U.S.C. § 103(a).

Claims 8-11, 13-15, and 16-22 are rejected under 35 U.S.C. § 102(e) as being anticipated by Ghirnkar et al. (U.S. Pat. No. 6,381,241). Claim 8 is directed to a method of communicating data from a transmitting end to a receiving end and recites **“the receiving end receiving from the transmitting end a first transmission including original data bits without overhead bits produced at the transmitting end by operation of an encoding algorithm applied to the original data bits; the receiving end determining whether the original data bits have been received correctly and, responsive to a determination that the original data bits have not been received correctly, the receiving end transmitting to the transmitting end a request for transmission of the overhead bits.”** (emphasis added).

Examiner has cited the abstract and col. 5, lines 13-42 as an anticipatory disclosure by Ghirnkar et al. Examiner has not specifically identified any of the above limitations in the cited reference. With regard to the rejection of claims 1 and 23, Examiner has cited Figure 6, elements 605-640 and col. 9, lines 41-65 of Ghirnkar et al. as disclosing similar limitations. After careful review of this reference and the portions identified by Examiner, applicants do not understand the present rejection. Ghirnkar et al. do not teach or suggest transmitting original data bits without overhead bits. Furthermore, Ghirnkar et al. do not teach or suggest transmitting a request for transmission of the overhead bits. The disclosure at Figure 6, elements 605-640 and col. 9, lines 41-65 specifically show parity blocks included with each transmitted 610 and received 615, 630 message. Ghirnkar et al. state “For purposes of illustration the data has not been interleaved.” (col. 9, lines 50-51). When interleaved, the order of data and parity bits is scrambled so that it is not possible to transmit data bits without parity bits.

In their disclosure at col. 5, lines 9-22, Ghirnkar et al. state that message sequence 205 illustrates handshaking when no errors occur. Referring to Figure 2B, message sequence 205

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depicts a paging system transmitting a new message to a mobile device. The format of this new message is shown at Figure 3 and described at col. 6, lines 17-36. Examiner will please note that each coding block 330 includes a plurality of symbols 340 and a parity block 350. If this parity block is taken as the overhead bits of claim 8, there is no disclosure that data bits are ever transmitted "without overhead bits" as required by claim 8.

Referring back to Figure 2B and their disclosure at col. 5, lines 23-42, Ghirnkar et al. state that message sequence 215 illustrates handshaking when one or more errors occur. When an error occurs, the mobile device transmits a NAK. "Responsive to the NAK, the paging network, transmits a duplicate message with the same message id." (col. 5, lines 33-35). This duplicate message includes the same parity block as previously discussed with regard to Figure 3. The NAK, therefore, is not a request to send the parity block but a request to resend the original message. Ghirnkar et al. do not disclose transmitting a request for transmission of the overhead bits or transmitting a separate request for transmission of the overhead bits as required by claim 8. Thus, claim 8 and depending claim 9 are patentable under 35 U.S.C. § 102(e) over Ghirnkar et al.

Claim 10 is directed to a data communication apparatus and recites "a data path coupled between said encoder and said output, said data path receiving information from said another data communication apparatus, **said data path selecting one of the original data bits and the overhead bits in response to a first information, said data path selecting the other of the original data bits and the overhead bits in response to a second information**, to be provided to said output for transmission across the communication channel to said another data communication apparatus." (emphasis added). Ghirnkar et al. do not disclose any selection of data bits or overhead bits. As previously discussed with regard to claim 8, Ghirnkar et al. disclose data bits and parity bits are always transmitted together. (Figure 6, elements 605-640 and col. 9, lines 41-65). If a message is not received correctly, a duplicate message is transmitted again. This duplicate message includes the same parity block as previously discussed with regard to Figure 3. (col. 5, lines 33-35). Thus, claim 10 and depending claims 11 and 13-15 are

patentable under 35 U.S.C. § 102(e) over Ghirnkar et al. Moreover, depending claim 12 is patentable under 35 U.S.C. § 103(a) as depending from patentable claim 10.

Claim 16 is directed to a data communication apparatus and recites “an input for **receiving a received version of original bits in response to a first information without overhead bits produced at another data communication apparatus** by operation of an encoding algorithm applied to the original bits, said input **receiving said overhead bits in response to a second information**, said original bits and overhead bits transmitted over a communication channel by said another data communication apparatus; an error detector coupled to said input for determining whether the received version of the original data bits is correct; and a controller coupled to said error detector, **responsive to a determination that the received version of the original data bits is correct for providing said first information** to said another data communication apparatus, and **responsive to a determination that the received version of the original data bits is incorrect for providing said second information** to said another data communication apparatus.” (emphasis added). As previously discussed, Ghirnkar et al. do not disclose receiving original bits without overhead bits. According to Ghirnkar et al., data bits and parity bits are always transmitted and received together. Moreover, there is no disclosure of a controller to provide first and second information to respectively request original data bits without overhead bits or to request overhead bits. Thus, claim 16 and depending claims 17-22 are patentable under 35 U.S.C. § 102(e) over Ghirnkar et al.

Claims 1-7 and 23-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rogard in view of Palm (U.S. Pat. No. 6,694,470) and further in view of Ghirnkar et al. (U.S. Pat. No. 6,381,241). Examiner admits that the combined art of Rogard and Palm does not explicitly show the transmitting end transmitting the original data bits without the overhead bits in a first transmission to the receiving end and attributes this disclosure to Ghirnkar et al. (Office Action 12/29/2005, page 3). Examiner specifically identifies Figure 6, elements 605-640; col. 9, lines 41-65 to Ghirnkar et al. for this claim limitation.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Here, Examiner's contention that Ghimikar is "in a similar field of endeavor" is not a convincing line of reasoning for a combination of references. Moreover, even an improper combination of the above recited references does not disclose all the claim limitations and, therefore, succeed in producing advantages of the present invention.

Claim 1 specifically recites "the transmitting end transmitting the original data bits without the overhead bits in a first transmission to the receiving end; and the transmitting end refraining from transmitting the overhead bits until the transmitting end receives an indication from the receiving end that the original data bits have not been correctly received at the receiving end." Claim 23 recites "A method of transmitting data, comprising: applying an encoding algorithm that produces overhead bits to a plurality of original data bits that are to be transmitted; transmitting the original data bits without the overhead bits in a first transmission; and refraining from transmitting the overhead bits until receiving an indication that the original data bits have not been correctly received." Claim 27 recites "receiving a first transmission including original data bits without overhead bits produced by

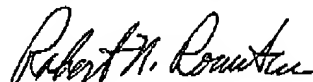
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**operation of an encoding algorithm applied to the original data bits; determining that the original data bits have not been received correctly; and transmitting a request for transmission of overhead bits responsive to the step of determining.** (emphasis added).

As previously discussed with regard to claim 8, Ghirnkar et al. do not disclose transmitting original data bits without overhead bits as required by claims 1 and 23 or receiving original data bits without overhead bits as required by claim 27. Both transmitted 610 and received 615 messages of Figure 6 of Ghirnkar et al. include data bits and parity bits. Moreover, these data bits and parity bits are interleaved prior to transmission so that separate transmission and reception is not even possible. Ghirnkar et al. state "For purposes of illustration the data has not been interleaved." (col. 9, lines 50-51).

In view of the foregoing, applicants respectfully request reconsideration and allowance of claims 1-32. If Examiner persists in the present rejection, applicants respectfully request identification of specific claim elements from the cited references in a subsequent advisory action. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,



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